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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,039	06/28/2001	Yukihisa Takeuchi	939 019	5051

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EXAMINER

KIM, CHRISTOPHER S

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 04/05/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,039

Applicant(s)

TAKEUCHI ET AL.

Examiner

Christopher S. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 13, 2004 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

3. The drawings were received on February 13, 2004. These drawings are unacceptable. Figure 3 shows a base frame 13c configuration which is not supported by the disclosure as originally filed.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "vibration source is fixed to a fixation section, and at least another portion of said vibration source is in contact with said liquid sump" recited in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The amendment filed February 13, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "(i.e., a fixation section)" and "(i.e., flat)".

Applicant is required to cancel the new matter in the reply to this Office Action.

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "fixation section" recited in claim 11.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

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skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure, as originally filed, does not disclose "flat" recited in claim 13.

Claim Rejections - 35 USC § 102

9. Claims 9, 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yao et al. (4,667,877).

Yao et al. discloses a liquid-drop spraying device comprising: a liquid sump 20 including an outlet 22 and inlet 19; a common fluid supply passage 11; a vibration source 16.

10. Claims 9-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Perduijn (4,418,354).

Perduijn discloses a liquid-drop spraying device comprising: a liquid sump 3 including an outlet 15 and inlet 17; a common fluid supply passage 19; a vibration source 9, 23, 25; a fixation member 39, 43.

Response to Arguments

11. Applicant's arguments filed February 13, 2004 have been fully considered but they are not persuasive.

Applicant argues that Yao does not disclose a single vibration source for changing the volume of at least two of the pressure chambers. The "plurality of pressure chambers" in claims 9 and 16 are not further limited. Yao discloses a plurality

of pressure chambers. For example, in figure 1, Yao shows four pressure chambers. Each pressure chamber comprising of tube 20 and portions of chamber 11 in vertical alignment with each tube 20. They each have an inlet (defined by the passage of fluid into those areas) and an outlet 22 in communication with a common fluid supply passage via an inlet passage 15.

In response to applicant's argument that Yao's reservoir 11 is a single pressure chamber and not a plurality of pressure chambers, should applicant's pressure chamber 10 be looked as a single pressure chamber since they are all connected by passage 20? Additionally, the claims do not limit "a plurality of pressure chambers" in any way.

Applicant argues that liquid sump 3 of Perduijn does not contain a plurality of pressure chambers. Claim 16 recites "providing liquid sump comprising a plurality of pressure chambers each having an outlet and an inlet in communication with a common fluid supply passage via an inlet passage." Applicant has defined the "liquid sump" as being made up by at least "a plurality of pressure chambers." Each tube 3 is considered a pressure chamber.


Applicant argues that Perduijn's separate pumping section 7 cannot be considered a single vibration source. Applicant's claim does not preclude separate sections. Additionally, Perduin discloses a single vibration source 7 (see figure 5) which changes the volume of multiple pressure chambers 3. Finally, even if applicant's vibration source always acts in unison or composed of a single element, doesn't applicant's vibration source inherently have sections too?

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Christopher S. Kim
Primary Examiner
Art Unit 3752

CK